

# **Full Service Contracting in Support of Complex Weapons Systems**

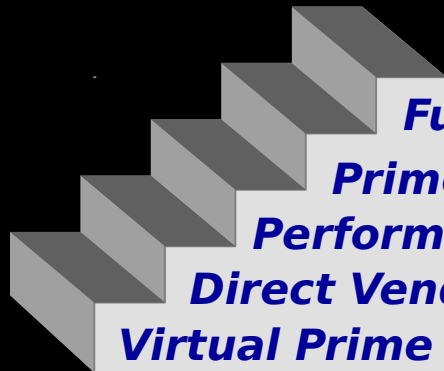
**Joe Grosson**  
**Director, Lifetime Support**  
**Lockheed Martin SIBA**



## **& Industry Perspective on**

# FSC (Full Service Contracting) & PVS (Prime Vendor Support)

## The Integration of Systems Engineering & Supportability



• Enabling trade space decisions for the life of a system

• Reducing ownership cost while optimizing mission effectiveness

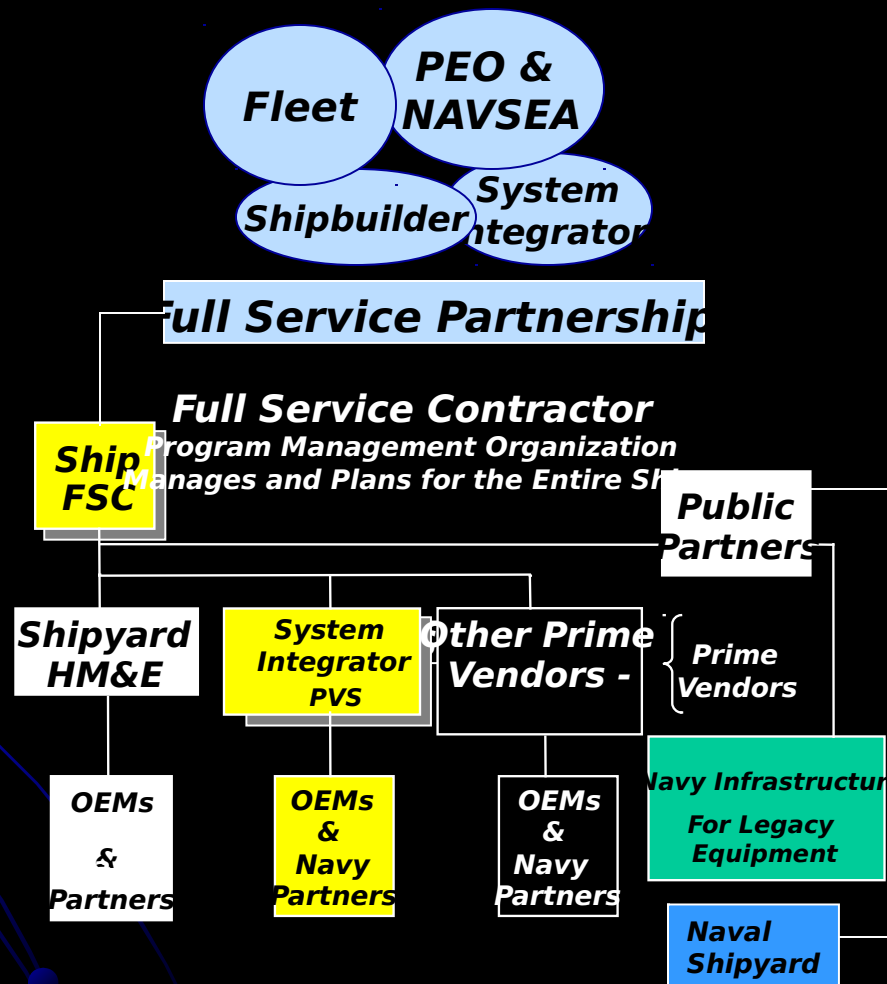
• With the Prime Contractor delivering, modernizing and supporting the system

### Characteristics

- Guarantee of Operational Availability and Management of Technology Refresh, Insertion and Modernization
- “Power by the Hour” with term and performance incentives. Reinvestment of some savings in technology insertion and reliability improvement
- Long term FFP multiple incentive Contract where the Prime is incentivized to:
  - Maintain a Robust and Competitive Industrial Base
  - Single prime contractor using best provider government organizations
  - Guarantee technology currency
  - Respond to surge requirements

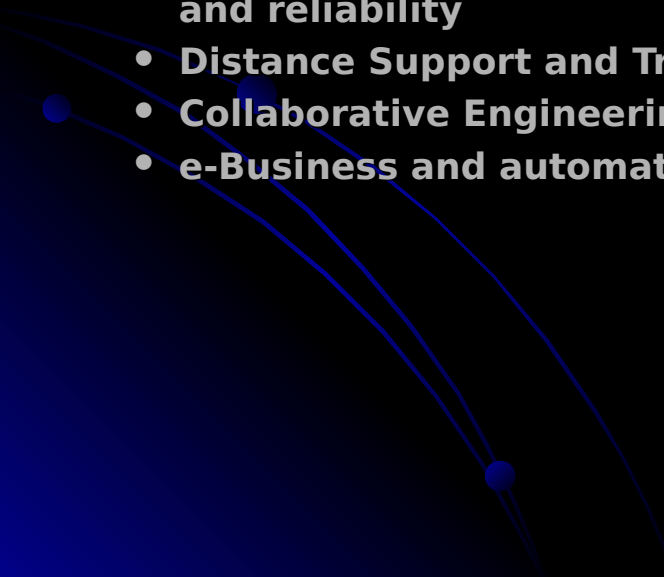
# Full Service Contracting

## “A Notional NAVSEA Business Model”



# Contracting Trend re: FSC/PVS



- The US Navy Support Paradigm is continuing to shift to contractor lifetime support
  - NAVICP has awarded 125 PBL contracts & NAVSEA and NAVAIR have awarded PVS and Lifetime Support contracts. PVS showing up as an evaluated factor for major acquisitions. 1/3 of weight for JSF selection based on lifecycle solutions
  - Enablers include:
    - Government Contracting Ingenuity that works within 10 USC statutes & Appropriation language while balancing risk with appropriate contract incentives
    - Redefining the System Integration Process to combine engineering & supportability with trade-space analysis for the life of the system
    - Effective public-private partnering using lessons learned from both US Military Components and the UK
    - COTS driven solutions and employing the natural growth of processing power and reliability
    - Distance Support and Training (Anchor Desk & One Touch)
    - Collaborative Engineering Environments & IDEs
    - e-Business and automated supply chain management
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# PBL/PVS Type Contracts (Partial List)

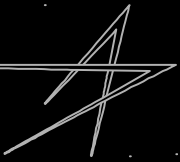


- **Lockheed Martin**
  - F117 TSPR
  - F-14 LANTIRN
  - AEGIS
  - ARCI
  - CASS
  - MK 41 VLS
  - Q70
  - Aircraft Tires
  - S3 PVS
  - JAVALIN
  - HIMARS
  - Mk 92 FCS
  - TRIDENT Nav
  - TADS/PVNS
  - UK Merlin
- **Lockheed Martin Pending**
  - H-60 Tip to Tail
  - P3 AIP
  - BSY-2
  - BLQ 10
  - SQQ89(V)15
  - Machinery Controls
- **Raytheon**
  - ITAS (TOW)
  - CWIS
- **Boeing**
  - C17 TSSR
  - F-18 E/F
- **Honeywell**
  - APU
- **TRW**
  - E2C Computer
- **GE**
  - F404 Engine

# Navy Full Service Contracting Wargame

- **Objective:** Wargame the procurement, award and operation of contractor provided lifetime support ~ Key to the understanding, definition and future Navy policies
- **Sponsor:** SECNAV & COMNAVSEA
- **Conducted:** March 3-6, 2002, McLean, VA
- **Players:** 60 Flag/SES; 30 Industry: GD, NG, Boeing, BAE, Raytheon, Brown & Root/Halliburton, Wall Street, LMC

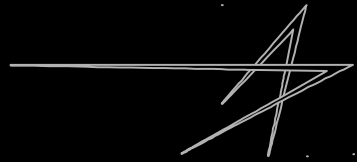
# Navy Full Service Contracting Wargame



- **Game Structure:**
  - Navy Issued RFI ~ pre-game
  - Industry Responded with Comments ~ pre-game
  - RFP issued ~ starts game
  - Three Companies respond
    - Shipyard with Systems Integrator as subcontractor
    - Systems Integrator with Shipyard as subcontractor
    - Commercial Privatization & Outsourcing Company
    - Each company has mix of senior Navy and Industry players
  - Navy Manages Process with Representatives from ASN, OPNAV, Fleet, OLA, Congressional Staffers, ISEAs, Warfare Centers, other Systems Commands :
    - “Big Navy” ~ SECNAV, OPNAV, SYSCOMS, Fleet
    - Labs/Depots
    - Congressional Players
  - Proposals evaluated, awards made, protests lodged and adjudicated and contracts awarded
  - Contracts worked in compressed time to determine how problems are managed and resolved
  - Game completes with “Hot Wash-up”

# NDIA FSC Working Group

## View From Industry Preceded Game



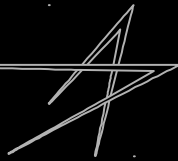
FSC-like contracts are successful when:

- Concept is fully backed by military leadership
- Concerns of opponents to direct contractor support are acknowledged and addressed
- There is a sharing of information that results in a compelling business case
- Time is taken to make the case for direct contractor support to public and legislative leadership
- Legislative and regulatory impediments are directly addressed and effective remedies developed



From the perspective of the industry working group, the central issue is not whether an industry-led, public-private partnership can provide efficient, effective platform level life cycle support in peace and war.

## NDIA FSC Working Group

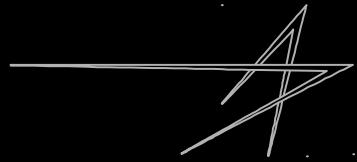


**In our view, the central issue is the commitment of Government in resolving obstacles to FSC implementation.**

The FSC working group proposed a definition of FSC that emphasizes the concept's most important characteristic, single point industry accountability for platform/system life cycle support. The definition includes several important features:

- **Performance by industry of design, development & support functions throughout the life of a platform or system**
- **FSC responsibility for total systems engineering and delivery of technology refresh, technology insertion, maintenance and modernization changes.**
- **FSC contract incentives to minimize Total Ownership Cost (TOC) while delivering a specified level of readiness, and meeting unexpected**

# NDIA FSC Working Group



- ***and, FSC responsibility for viability of the industrial base, preservation of adequate competition, and management of diminishing manufacturing sources, including appropriate set-asides for small and disadvantaged businesses.***

The paper presented an industry view of FSC essential elements, specifically:

- Public-Private Partnerships
- Technical, Cost and Schedule Decision Authority
- Process Visibility
- Contract Period of Performance
- Integrated Product Teams
- Contract Structure, Incentives and Performance Measurement
- Contract Costs and Total Ownership Costs
- System Engineering
- Contract Statutory, Regulatory, Policy and Procedural Environment
- Small and Disadvantage Business Involvement in Full Service Contracting

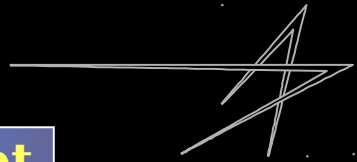
# Navy Perspective of the FSC Wargame



## Game Objectives

- What critical areas of concern must be addressed in FSC negotiations between the government and industry?
  - *How should liability be determined and how can it be enforced?*
  - *What are “warfighter” concerns and priorities?*
  - *Roles and responsibilities defined & implemented for success?*
- What are the near term and strategic opportunities for change?
  - *“Business model” alternatives integrated into government environment?*
  - *Commercial standards and practices that provide cost savings & success?*
  - *Metrics and MOE’s to be integrated into a strategic road map?*

# Navy Game Wheel



**DoD/OSD**

- Review operational requirements
- Identify budget constraints/ opportunities
- Provide guidance

- Review budget tensions
- Assess and prioritize alternatives operational and business
- Promote corporate "guidance's"

**Wall Street**

- Assess corporate profiles
- Identify risks
- Provide financial "guidance"

**DoN,  
SYSCOMS**

**Viking**

Shipbuilder w/  
System Integrator  
as sub-contractor

**CORTEZ**

System Integrator  
& Shipbuilder as sub

**ORION**

Commercial  
full-service  
contracting  
company

**LPD-XX  
PHOENIX  
DDG-XX**

**CONTROL**

- Environment: Economics and Conflict
- Politics: Local and National

- Assess program: FSC requirements
- Assess investment issues
- Develop risk management
- Identify issues of concern

**Depots**

- Assess program support requirements
- Determine costs: current and future
- Develop proposal strategy
- Assess risks

**In Service Engineering**

- Partnering Strategy
- Competitor strategy

**Warfighter**

- Review operational requirements
- Review current and projected costs

**Congress**

- Review budget issues
- Review legislative requirements f
- Title X restrictions
- Identify concerns
- Identify the "art" of the possible

# Game play developed a number of insights for the Navy

## ***How must FSC be defined for effective acquisition strategies***

1. FSC has potential if we can know how to get:

- Real savings to TOA
- Service tailored to ships' operating cycles and the battle group readiness requirements
- Safe operation
- More effective warships that can meet their mission requirements
- Meaningful metrics
- Business models that have exit strategies

2. Policy and decision-makers must consider changing the existing budget process (PPBS) as it does not support FSC as a business initiative well

- Annual budgets vs. 5-year or greater awards
- Execution year priorities—including readiness
- Budget tensions vs. requirements

3. Full Service Partnering “FSP” should exist between government and industry



# Game play developed a number of insights for the Navy

4. FSC must have a Phased Approach for legacy systems that accommodates Risk Mitigation needs
  - Proceed step-by-step until FSP overtakes all ships
  - Allows both sides to assess true costs and opportunity to integrate
  - Government participation with contractor
5. FSC must have more ambitious approach for cradle-to-grave projects
6. Explore the extent to which levels of technical authority can be delegated
7. Must have clearly defined exit strategy for existing contract vehicles
8. Need to understand the best mix of organic Navy and FSC assets that plays to strengths of each for overall benefit of the Navy.

Game play developed a number of insights for the Navy

***What critical areas of concern must be addressed in FSC negotiations between the government and industry?***

1. A clearly defined contract
2. Stable and adequate funding
3. Government (including operators) need to identify and fulfill responsibilities
4. Contract requirements must reflect real warfighter needs
5. Industry's viable business case in FSC must have the following tenets:
  - Strategic alignment among all parties
  - Opens new markets
  - Promotes corporate objectives
  - Meets risk parameters
  - Meets financial objectives
6. Achieving cost reductions is critical for success
  - Minimize redundancy
  - Cost-containment in sole-source environment
7. Implementation strategies must have:
  - Metrics (Total Ownership Costs, Readiness)
  - Clear definition of contract scope in a dynamic environment
  - Technology refresh needs to be open to all sources



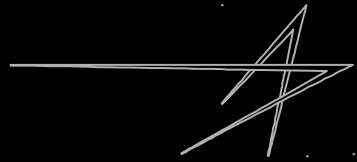
Game play developed a number of insights for the  
Navy

## **What are the near term and strategic opportunities for change?**

1. Any system...
  - That is highly COTS
  - New with predominant commercially furnished equipment
2. Conversion to FSC of existing support contracts
3. Explore “Sponsored Reserves” concept in order to deploy FSC personnel on Navy platforms engaged in hostile or wartime environments
4. Single Program Manager, single sponsor programs with cradle-to-grave responsibility may offer best pilot
5. Create alignment to facilitate change

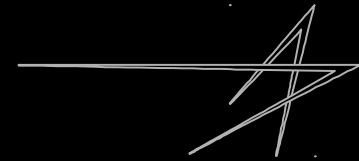


# Future Efforts



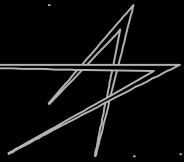
“At the game’s “hotwash” conclusion, the majority of the players endorsed further exploring the feasibility, real time, and real life, of FSC. The participants commented that “the time is right for change.” Both senior level government and industry leaders are prepared to carry forward the business strategy of full service contracting, but before this can be done, a number of issues ***need to be resolved***”

# Issues to be resolved



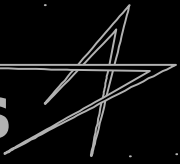
1. FSC may reduce Operational Navy flexibility to prioritize funds
  - SCN vs. O&M
  - Fleet control of funds vs. Program Managers, PEOs, SYSCOM's
2. How would we deal with an FSC in less than a fully-funded environment?
3. Preserving Big Navy interests:
  - Fleet flexibility across platforms
  - Preserving core National Security capability
  - Accountability/Liability throughout the life-cycle
4. A clear definition of desired outcomes (performance, schedule, cost, etc.) and metrics to be measured and frequency
5. Fleet must be part of contract and performance assessment—Fleet planning across platforms
6. Must ensure that legal issues are addressed
  - Evaluate 10 USC 2464/2466
  - Third party access rules/indemnity for service agents
  - OSHA/EPA liability clarification for service agents
  - Security issues with FSC databases (SIPR vs. NIPR)
  - A-76/BRAC implications
  - Redefining warrior and civilian
  - Mobilization in War Zone?
  - Geneva Convention Status
  - Strike Free contract clause
7. Waivers may be needed to enable FSC partnering by government
  - Government liability acceptance
  - Gain sharing
  - Exclusive partnering

# What does this issue list signify?



- **If all of these need to be “resolved” first will we ever get there?**
- **Nevertheless, there are solutions for about half of these issues.**
- **If we need to resolve these issues why hasn't industry been asked to develop a recommendation for resolution?**
- **Why hasn't a Government/Industry IPT been convened to deal with the overall issue set?**

# Wargame Recommended Next Steps



1. Consider a pilot
2. Resolve legal/regulatory issues
3. Work out the savings and budget construct
4. Learn how to do it...and how to make it fit into current Navy operations
5. Create broader understanding of the current ship/combat system FSC efforts—in both Navy and industry. Investigate issues using platforms and systems such as:

JCC-X

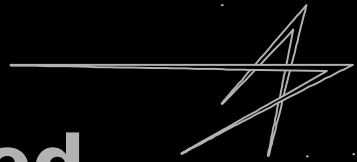
LPD-17

CVN-77


CIWS

Etc

# COMNAVSEA's Lessons Learned



1. "Partnership between industry & Navy is essential"
2. "There are many affordable support options between the commercial sector and traditional organic support...it is imperative that we obtain Fleet performance agreements and business case analyses to evaluate the best support structure for the Navy"
3. "...the Navy acquisition community is ultimately responsible for providing weapon system support to the Fleet. The support approach must always be transparent to the Fleet."



## **Finally, Here is an Industry Perception of the War Game Exercise and the Impact on How the Navy Does Business**

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- A tremendous amount of energy and time was invested in planning and executing the FSC Wargame with the expectation that a new way forward would emerge. Pursuit of that expectation is not visible to industry
- Since the 21 June 2002 final report, we see no impact on NAVSEA Acquisition Strategies to employ either PVS or Full Service Contracting, or action on any of the five recommended next steps
- While it was NAVSEA that stepped out with the wargame, NAVAIR has implemented the FSC/PVS concepts through programs such as JSF and S-3 PVS



## Industry Perception of the War Game Exercise and the Impact on How the Navy Does Business

- NAVICP is the exemplar with regard to the complete spectrum of performance based logistics contracting. With over one hundred PBL contracts in place and a great deal of BCA experience. That experience was not capitalized upon during the wargame.
- Public-Private Partnerships are a necessary enabler for FSC especially for support of legacy portions of new systems. While there are a few examples of PPP in-place, the notion is mostly rhetoric as the hard issues have yet to be faced. At the working levels, industry and ISEAs sense an environment of competition vice partnership. The wargame dealt with PPP and a model evolved that should be evaluated. Other successes, e.g. APU, LANTIRN, and UK experiences should be evaluated



## Industry Perception of the War Game Exercise and the Impact on How the Navy Does Business

- There was emphatic agreement at the conclusion of the wargame that NAVSEA needed to move out with pilot programs. This can best be achieved for major systems, especially where a support contract already exists with the OEM. Existing contracts can be converted into PBL or PVS using FFP, power by the hour, or multiple incentive arrangements.
- If the experience with PBLs is a bench-mark then it is clear that cost savings opportunities resulting from FSC & PVS are not being exploited.

**We need to move out with pilot programs**